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## MC-SP-2 Alcohol-borne inorganic zinc rich primer

### Product description

MC-SP-2 is a two-component, alcohol-borne, self-curing primer consisting of high content zinc dust, ethyl silicate, and selected additives, as required. Offers cathodic protection to local mechanical damage. The cured film exhibits good adhesion on metal surface with excellent heat and solvents resistance.

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### Recommended use

Suitable for ship, offshore steel structure, storage tank, bridge etc in moderately to severely corrosive environment. The maximum service temperature at dry condition is 400°C.

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### Recommended film thickness and spreading rate

Film thickness, dry( $\mu\text{m}$ )	25~100
Film thickness, wet( $\mu\text{m}$ )	32.9~131.6
Theoretical spreading rate, $\text{m}^2/\text{l}$	30.4 7.6

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### Basic characteristics

Color	grey
Volume Solids, %	76 $\pm$ 2
Flash Point, °C	14 $\pm$ 2
Density (mix), g/ml	2.4 $\pm$ 0.05
VOC, g/l	270 $\pm$ 10
Corrosion resistance	Good
Solvent resistance	Good

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### Surface preparation

#### Bare steel:

Roughness: using abrasives suitable to achieve medium grade (ISO 8503-2).

Cleanliness: blast cleaning to min. Sa 2 ½ (ISO 8501-1)

#### Steel coated with shopprimer:

Abrasive blasting to ensure adhesion.

#### Other surfaces:

The primer can be used on other substrates. Please contact our company for more information.

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### Condition during application

For application at high temperature in summer, thinner may be required to avoid dry spray.

The temperature of the substrate should be at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Minimum temperature for curing is 0°C. Minimum relative humidity: 50%. Maximum relative humidity: 85%. Relative humidity preferably above: 65%. In confined spaces provide adequate ventilation during application and drying.

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### Application methods

Spray: airless spray

Brush: recommended for precoating or small area coating only, multiple coats may be required to achieve the specified film thickness.

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### Application data

Mixing	agitate component A and component B respectively, and then mixed thoroughly. Filter Size: 60 mesh. Stirring constantly during the process of spraying.
Mixing ratio (weight)	A:B=15:33
Pot life (23°C)	6 hours (Reduced at higher temperature)
Thinner/Cleaner	MC-SX-1
Recommended airless spray parameters	
Usage of thinner	0~10% (weight)
Pressure at nozzle	15 MPa (about 150 kg/cm <sup>2</sup> ) .
Nozzle tip	0.38~0.53 mm.
Spray angle	40~80°
Filter	Check to ensure that filters are clean.

### Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

Good ventilation (Outdoor exposure or free circulation of air)

Typical film thickness

One coat on top of inert substrate

Substrate temperature, °C	5	15	23	40
Surface dry, min	20	15	10	5
Through dry, h	24	16	4	2
Cured, h	48	24	16	12
Dry to recoat, minimum, h	48	24	16	12

The given data must be considered as guidelines only. The actual drying time/ recoat interval may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. .

### Typical paint system

Subsequent coat: MIO epoxy coating but without alkyd paint and polyester paint.

Alcohol-borne inorganic zinc rich primer 75 μm

MIO epoxy coating 200 μm

Acrylic polyurethane topcoat μm 2×40

Other systems may be formulated, depending on specific circumstances.

### Note

This primer can not be used on insulation coating or underwater. In order to obtain good corrosion resistance, film thickness will be no less than 40μm.

Film cracking caused by exceeded film thicknesses must be removed by abrasive blasting.

When the relative humidity is lower than 50%, the curing will be delayed. So after 4 hours' cured, water mist can be sprayed to keep the film surface moisture and accelerate the curing process.

Before coating of subsequent paint, the inorganic zinc rich primer should be thoroughly cured to avoid affecting the adhesion.

The specified sealer is recommended to avoid pinhole. Any loose zinc salt that formed on the primer as a result of prolonged weathering exposure must be removed prior to the application of subsequent coating by high pressure fresh water cleaning.

### Storage

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Storage conditions are to keep the containers in a cool, dry, well ventilated space and away from source of heat and ignition.

Containers must be kept tightly closed.

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### **Handling**

Handle with care.

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### **Packing size**

Component A in an 18 litre container and component B in a 4 litre container, or negotiation.

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### **Health and safety**

Before and during use of this product, please observe the precautionary notices displayed on the container. Be careful to avoid inhalation and skin contact of paint. Spillage of paint on the skin should immediately be removed with a suitable cleanser, soap and water. Avoid using organic solvent. Eyes should be well flushed with water and then seek medical attention immediately. The product should be used under well-ventilated condition. If using in stagnant condition and narrow place, forced ventilation must be provided, and applicators should take corresponding measures to strengthen personnel protection.

**For detailed information on the health and safety and precautions for use of this product, please consult our company.**

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